A MODIFICATION ONLY - DOES NOT COMMUNICATE A MODIFICATION OR SAFETY CONDITION

# SERVICE NOTE

Supersedes: NONE

4287A-03

# 4287A RF LCR Meter

Serial Numbers: JP1KGxxxxx, JP2KGxxxxx, MY432xxxxx

## HDD repair procedure is changed

Parts Required: P/N	Description		
04287-65000	Mass Storage Disk (HDD) for service	1	

# ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

# **INFORMATION ONLY**

AUTHOR: kW PRODUCT LINE: WN

ADDITIONAL INFORMATION:

This procedure must be performed by Agilent Technologies service offices

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January 13, 2005

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## Situation:

The new HDD (04287-65000) for repair does not include any operating system. When the HDD (04287-65000) is used, the operating system for 4287A should be installed.

## **Solution/Action:**

The new HDD repair procedure for the 4287A is as follows.

## **Required Equipment**

OS Image: CD disk (Operating system for 4287A, F/w rev.1.31, Agilent service office use only) HDD: p/n 04287-65000 (It is available for 4287A(win98), E4991A(win98), E5070/71A) Software : Symantec Ghost ™ 8.0 (English version, Enterprise product) System(PC) : Windows 2000 Professional (or Windows XP Professional) with DVD drive (or available to support external DVD drives)

LAN Cable: Cross (It enables the peer-to-peer communication between the 4287A and the PC.) (or 2 straight cables and a hub.)

## **Outline of the procedure**

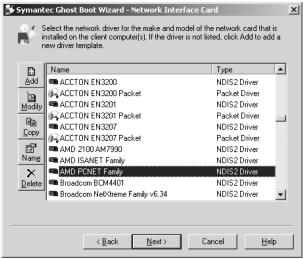
- 1. Make Boot disks using Symantec Ghost (only needs to be done one time) (5 min.)
- 2. Replace the defective HDD with the new HDD(p/n 04287-65000) (10 min.)
- 3. Connect the 4287A to your PC installed Symantec Ghost directly
- 4. Set up IP address and subnet mask of your PC (5 min.)
- 5. Set up GhostCast server (10 min.)
- 6. Copy the image file onto the 4287A's HDD (10 min.)
- 7. Perform initial setting for the 4287A (15 min.)

#### 1. Make Boot disks using Symantec Ghost (Required for the first time)

- 1) Click Start Programs Symantec Ghost Ghost Boot Wizard.
- 2) Select Network Boot Disk and press the Next button.

💕 Symantec Ghost Boot Wizard - Introduction	X
Welcome to the Ghost Boot Wizard. Select the type of boot package you the type of boot package you the to create for starting your client machines.	wish
Ghost boot disk with support for non-TCP peer-to-peer and CD/DVD reading/writing operations.	
Section 2012 Content of the support for GhostCasting and TCP peer-to-peer connections.	
Boot disk that maps a drive letter to a shared resource on a server.	
CD/DVD Startup Disk with Ghost Ghost boot disk with generic CD-ROM drivers for reading from CD/DVDs that were not created with Ghost	-
8.0.0.984 - Copyright (C) 1998-2003 Symantec Corp. All rights reserved.	
< <u>B</u> ack <u>N</u> ext > Cancel <u>H</u> e	lp

3) If HP Ethernet with LAN remote power adapter is installed in the 4287A, select **AMD PCNET Family** and press the **Next** button.



If 3Com EtherLink is installed in the 4287A, select **3COM 3c90x** and press the **Next** button.

B	Name	Туре
Add	📾 3COM 3c556	NDIS2 Driver
'n	🙀 3COM 3c556 Packet	Packet Driver
todify	🚥 3COM 3c575 (fe575c) CardBus	NDIS2 Driver
	🕮 3COM 3c59x	NDIS2 Driver
Copy	🙀 3COM 3c59x Packet	Packet Driver
	🕮 3COM 3c689x TokenLink III	NDIS2 Driver
r I	💶 3COM 3c90x	NDIS2 Driver
lam <u>e</u>	🚥 3COM 3c920 Integrated	NDIS2 Driver
×I	🕮 3Com 3c98xx	NDIS2 Driver
elete	all 3COM 3ccfe574b	NDIS2 Driver
	ጫ 3COM cc10	NDIS2 Driver

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4) Press the **Next** button

💕 Syma	intec Ghost I	Boot Wizard -	DOS Version		×
- R <sup>e</sup>	Ghost Boot \	Vizard and requi	res no additional files.	C-DOS is included in the To use MS-DOS, you mu n formatted floppy disk.	ıst
	-DOS Version © Use	PC-DOS			
:	O Use	MS-DOS			
inse		matted floppy dis	install these files, sk into drive A, then	Get MS-DOS	
		< <u>B</u> ack	<u>N</u> ext >	Cancel <u>H</u> elp	

## 5) Press the Next button.

<table-of-contents> Symantec Ghost Boot Wizard - Client Type</table-of-contents>	×
Select the type of client to be included in the boot package. The location of the files can be changed if the default install path is incorrect.	
<ul> <li>Symantec Ghost</li> <li>Symantec Ghost Console Glient</li> </ul>	
Program Location Ghost.exe C¥Program Files¥Symantec¥Ghost¥ghost.exe Browse Parameters	
Cancel	

## 6) Press the **Next** button.

💕 Symantec Ghost Boot Wizard - External storage support	×
Ghost has built-in support for accessing external storage devices, such as FireWire, USB or Zip drives.	
USB and FireWire Options Some BIOS's may limit access to USB or FireWire external storage devices. To enable Ghost to override the BIOS and gain full access to these devices, select the appropriate option:	
Override BIOS USB control     Override BIOS ErreWire control	
< Back Next > Cancel Help	_

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7) Select The IP setting ....., and enter IP address 192.168.0.1 and subnet mask 255.255.255.0. Press the Next button.

<b>3</b> 5 5 y	mantec Ghost Boot	Wizard	- Netw	ork Set	tings			×
	Enter the network package. Your ne required.	settings twork ad	for the c ministrat	lient that or will be	is to b able t	e booted from o tell you wha	i this boot t values are	
	C DHCP will assign	he IP se	ttings					
	☐ The IP settings wi	ll be <u>s</u> tati	cally def	ined: —				
	First <u>I</u> P Address:	192	. 168 .	0.	1			
	Subnet <u>M</u> ask:	255	. 255 .	255 .	0			
	<u>G</u> ateway:							
	<u>R</u> outer Hops:	16						
		( <u>B</u> ack		<u>√</u> ext>		Cancel	<u>H</u> elp	

8) Insert a floppy disk into your PC's FDD, and the Next button.

💕 Syma	ntec Ghost Boot Wizard - Destination Drive	×
	Select the floppy drive that contains the disks that will be created and the number of disks to be created with the current options.	
	You should leave the Format Disk(s) First option checked. This places system files on the boot disk that are required to make it bootable.	
	Floppy Disk <u>D</u> rive: A:	
	Number of disk sets to create:	
	Format Disk(s) First (recommended)	
	☑ Quick Format	
	< Back Next > Cancel Help	

## 9) Press the **Next** button.

In case of selecting AMD PCNET Family:

Client Details: Client:	Symantec Ghost	<b>^</b>
Destination:	Floppy Drive A:(Two disk set)	
Network Driver	<u>a</u>	
Template:	AMD PONET Family	
Driver: Driver Type:	pontnd.dos NDIS2 Driver	
Configuration F	<u>iles:</u>	
AUTOEXEC.BAT: @echo off		
•		

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	ng 3COM 3c90x:	
Symantec Ghost Boo	ot Wizard - Review	2
	ings in the details box. To change settings, click E n process, click Next.	lack. To start
Client Details:		
Client:	Symantec Ghost	
Destination:	Floppy Drive A:(Two disk set)	
Network Driver:		
Template:	3COM 3c90x	
Driver:	FL 90X DOS	
Driver Type:	NDIS2 Driver	
Configuration Fi	les:	
AUTOEXEC.BAT:		
@echo off		-
	~~ 1	
		<u> </u>
	- Paula Navia Consul L	11-1-
	< <u>B</u> ack <u>N</u> ext> Cancel	<u>H</u> elp

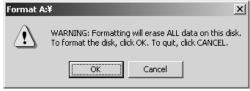
10) Press the **OK** button.

Ghost Bo	ot Wizard	x
$\underline{A}$	There is not enough room on a single disk to hold all the drives and executables that you require. The Ghost E Wizard will make a two disk set, putting the Ghost executable on the second disk.	oot
	OK	

11) Press the **Start** button.

Format A:¥	? ×
Capacity:	
3.5", 1.44MB, 512 bytes/sector	•
<u>File</u> system	
FAT	•
Allocation unit size	
Default allocation size	-
Volume <u>l</u> abel	
Format options	_
🔽 Quick Format	
Enable Compression	
[ <u>Start</u> ] <u>C</u> lose	

12) Press the **OK** button.



13) Press the **OK** button.

Formattir	ng A:¥	×
٩	Format Com	plete.
	ОК	

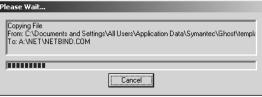
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14) Press the **Close** button.

Format A:¥ ? 🔀
Cagacity:
3.5", 1.44MB, 512 bytes/sector
Eile system
FAT
Allocation unit size
Default allocation size
Volume label
Format options
Quick Format
Start Cose

#### 15) Copying File. Please Wait...



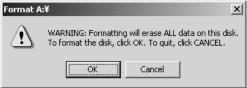
16) Insert the second disk into your PC's FDD, and press OK button.

Ghost Boot Wizard	x
Insert the second disk in the set. Select OK to c	ontinue, or CANCEL to abort creation of the disk set.
OK	Cancel

## 17) Press the **Start** button.

Format A:¥	<u>?</u> ×
Capacity:	
3.5", 1.44MB, 512 bytes/sector	•
<u>F</u> ile system	
FAT	•
Allocation unit size	
Default allocation size	•
Volume <u>l</u> abel	
	_
Format options	
Quick Format	
Enable Compression	
	_
[]	

18) Press the **OK** button.



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19) Press the **OK** button.

Formattii	ng A:¥	×
(j)	Format Comp	olete.
	OK	

## 20) Press the **Close** button.

Fo	rmat A:¥	? ×
	Capacity:	
	3.5", 1.44MB, 512 bytes/sector	•
	<u>F</u> ile system	
	FAT	•
	Allocation unit size	
	Default allocation size	•
	Volume label	
	Format options	
	Quick Format	
	Enable Compression	
		_
	<u>S</u> tart	

# 21) Copying File.

Please Wait	
Creating Directory: A:\GHOST\ A:\GHOST\	
ANGHUSTY	
1	
	[Cancel]

## 22) Press the **Finish** button.

E	Symantec Ghost Boot Wizard - Finished	X
	The new Network Boot Disk has been created. Please remove the disk from the floppy drive and press the Start Again button to restart the wizard from the beginning, or Finish to exit.	
	<i>Symantec Ghost</i> ™ Boot Wizard	
	<u>S</u> tart Again	
	Finish Cancel <u>H</u> elp	

## 2. Replace the defective HDD with the new HDD(p/n 04287-65000)

1) Replace the defective HDD with the new HDD (p/n 04287-65000). Refer to "A27 Mass Storage Disk Drive Replacement" of the 4287A service manual.

#### 3. Connect the 4287A to your PC installed Symantec Ghost directly

1) Connect the 4287A to your PC installed Symantec Ghost directly using a crossed LAN cable (or two straight LAN cables and a Hab for LAN).

#### 4. Set up your PC's IP address and subnet mask

- 1) Double-click "My Computer" icon on Windows desktop of your PC. And double-click Control Panel. The Control Panel window will appear.
- 2) In the Control Panel window, double-click Network and..., and click Local Area Connection.

🔁 Network and Dial-up Connections		_ 🗆 🗵
<u>File E</u> dit <u>View</u> F <u>a</u> vorites <u>T</u> ools	Adva <u>n</u> ced <u>H</u> elp	1
📙 💠 Back 🔹 🔿 👻 🛅 🛛 🥘 Search	Polders 🏈 History P 🥂 隆 🗙 🗐 🏢 -	
Address 🖻 Network and Dial-up Connect	tions	<b>▼</b> ∂60
	Make New Local Area Connection Conne SCom EtherLink XL 10/100 PCI TX NIC (3C9058-TX)	1
Connections		_
This folder contains network connections for this computer, and a wizard to help you create a new connection.		
To create a new connection, click Make New Connection.		
To open a connection, click its icon.		
To access settings and components of a connection, right-click its icon and then click Properties.		
To identify your computer on the network, click <u>Network Identification</u> .		
To add additional networking components, click <u>Add Network</u> <u>Components</u> .		
Select an item to view its description.		
2 object(s)		//

## 3) Press the **Properties** button.

Local Area Connect	ion Status	<u>? ×</u>
General		
Connection Status: Duration: Speed:		Connected 22:18:21 10.0 Mbps
Activity Packets:	Sent — 🗐 L 👍 1,292,732	— Received 645,784
Properties	<u>D</u> isable	
		<u>C</u> lose

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4) Select **TCP/IP** and press the **Properties** button.

Local Area Connection	Properties	? ×
General		
Connect using:		
3Com EtherLink	XL 10/100 PCI TX NIC	C (3C905B-TX)
		<u>C</u> onfigure
Components checked	are used by this conne	ction:
Install	er Sharing for Microsoft N col (TCP/IP) Uninstall	Properties
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks. Show icon in taskbar when connected		
	0	K Cancel

5) Select **Use the following IP address**, and then enter the IP address 192.168.0.2 and subnet mask 255.255.255.0. Press the **OK** button.

Internet Protocol (TCP/IP) Propert	ies ? 🗴
General	
You can get IP settings assigned aut this capability. Otherwise, you need to the appropriate IP settings.	
O <u>O</u> btain an IP address automatic	ally
Use the following IP address –	
<u>I</u> P address:	192.168.0.2
S <u>u</u> bnet mask:	255 . 255 . 255 . 0
Default gateway:	
C Obtain DNS server address aut	omatically
🕞 🖲 Use the following DNS server a	ddresses:
Preferred DNS server:	
Alternate DNS server:	
	Ad <u>v</u> anced
	OK Cancel

6) Restart your PC.

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## 5. Set up GhostCastServer

- 1) Insert the CD disk (Operating System for 4287A) into your PC's CD drive (or an external CD drive). Then, copy the image file of the CD disk onto your PC's HDD (C drive) as a temporary image file.
- 2) Click Start Programs Symantec Ghost GhostCastServer.
- 3) Click the **Browse** button.

🇊 Symantec Ghos	tCast Server			_ 🗆 ×
<u>File ⊻iew H</u> elp				
Session Name		<u> <u>     R</u>estore Image     </u>	C Create Image	
Image File			Browse	
O Djsk			=	Less Options <<
C <u>P</u> artition I			<u>ц</u>	Less <u>Options (</u>
- Client command line	e options		Au	to Start
Disk No.	Partition No.	* *		ent Count
Command line			Tin	neout
IP Address	MAC Address	Mode	Status	Accept Clients
				<u>S</u> end
<u></u>				Stop
Speed (MB/min)	MB Transmitted	Time Elapsed	Connected Clients	0
Percent Complete	MB Remaining	Time Remaining	Failed Clients	0
				NUM //

4) If Insert disk dialog box is displayed, click the **Cancel** button.

Insert disk	×
	Please insert a disk into drive D:.
	Cancel

5) Select the temporary image file you copied, and press the **Open** button.

Open						? ×
Look jn:	4287a_hddim	age	•	⇔ ≞ 💣 📰•		
ドレンピュー…	E12131121.GHC					
	, File <u>n</u> ame:	IZ131121.GH0		•	<u>0</u> pe	en
My Network P	Files of type:	Ghost Images (*.gho)		•	Can	cel

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6) Enter session name **kobe** and client count **1**. Then select **Restore Image** and **Disk** 

🕻 Symantec Gho	stCast Server - kobe			_ [ ] ]
jie ⊻iew <u>H</u> elp				
Session Name	kobe	<u> <u>     R</u>estore Image  </u>	◯ <u>C</u> reate Imag	je
Image File	C:¥4287a_hddimage¥IZ131121.G	НО	<u>B</u> rowse	
<ul> <li>Djsk</li> </ul>			_	L
O Partition			<b>T</b>	Less <u>O</u> ptions <<
Client command li	ne options			Auto Start
Dist. No.	Dealling Mar			Time
Disk No.	Partition No.			Client Count 1
Command line				
	,			Timeout
IP Address	MAC Address	Mode	Status	Accept Clients
				Send
				Stop
Speed (MB/min)	MB Transmitted	Time Elapsed	Connected Cli	ents 0
opeoa (morning)				0

7) Click the **Accept Client**. Then, a message of "Waiting for client to connect..." is displayed.

symancec Gilo	SLLAST SELAEL - KODE			
jie ⊻iew <u>H</u> elp				
Session Name	kobe	<u>     B</u> estore Image	C <u>C</u> reate Imag	е
Image File	C:¥4287a_hddimage¥IZ131121	.GHO	Browse	
🖲 Djsk	, 		¬	
C Partition			<u>~</u>	Less <u>O</u> ptions <<
- Client command li	ne options			Auto Start
Disk No.	Partition N	). <u>–</u>		Time
Disk Ho.				Client Count 1
Command line				Timeout
				, mooth j
IP Address	MAC Address	Mode	Status	Accept Clients
				<u>S</u> end
				S <u>t</u> op
Speed (MB/min)	MB Transmitted	Time Elapsed	Connected Clie	ents O
Percent Complete	MB Remaining	Time Remaining	Failed Clients	0
Waiting for clients t	o connect			NUM

#### 6. Copy the image file onto the 4287A's HDD

- 1) Connect the external keyboard and mouse to the connectors on the 4287A rear panel.
- 2) Insert the ghost boot disk  $(1^{st} disk)$  into the FDD of the 4287A.
- 3) Turn the instrument on.
- 4) PC DOS 7.1 Startup Menu is displayed. Then, select 1 and press Enter key.
- 5) Confirm that there are no error messages on the display.
- 6) A message of "Insert Ghost boot disk 2 (containing Ghost.exe). Press any key to continue.." is displayed. Then, insert the disk 2 into the FDD, and press Enter key.
- 7) About Symantec Ghost dialog box is displayed. Then, click the OK button.
- 8) Click Ghost Cast Unicast.
- 9) GhostCast Session Name to Join dialog box is displayed. Enter the session name kobe, select Server IP Address and enter the IP address 192.168.0.2. Then, click the OK button.
- 10) Select local destination drive by clicking on the driver number dialog box is displayed. Then, click the OK button.
- 11) Destination Drive Details dialog box is displayed. Then, click the OK button.
- 12) Question: (LB22) dialog box is displayed. Then, click the Yes button.
- 13) Progress Indicator dialog box appears.
- 14) In your PC, a message of "GhostCast in progress.." is displayed.

<b>h Symantec Gho</b> File <u>V</u> iew <u>H</u> elp	stCast	Server - kobe							_ [] >
Session Name	kobe			Eestore Image		C <u>C</u> reate	lmage		
Image File	C:¥428	7a_hddimage¥IZ131	121.GH	D		<u>B</u> rowse			
Djsk C Partition					~			Less <u>O</u> ptions	<<
Client command I	·	_					- Aut Tim	o Start	_
Command line		Partitio		<u>×</u>				ent Count  1 neout	
IP Address		\C Address		Mode		Status	Γ	Accept Clien	ts
192.168.0.1	00	-10-83-01-08-36		Unicast		In Progress		<u>S</u> end	
							[	Stop	
Speed (MB/min)	47	MB Transmitted	31	Time Elapsed	00:	39 Connecte	d Clients	1	
Percent Complete	16	MB Remaining	166	Time Remaining	03:	26 Failed Clie	ents	0	
GhostCast in progr	ess							NUM	

- 15) In 4287A display, Clone Complete dialog box is displayed. Then, click the Continue button and Quit.
- 16) Quit Symantec Ghost dialog box is displayed. Then, click the Yes button.
- 17) A:\GHOST> prompt is displayed. Then, turn the 4287A off.

х

18) In your PC, Transfer Complete is displayed. Then, click the OK button.

ymante	c GhostLast Server
	Transfer Complete
	(OK

19) Remove the boot disk from the 4287A's FDD.

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- 7. Perform initial setting for 4287A
- 1) Disconnect the LAN cable from the 4287A.
- 2) Turn the 4287A on.
- 3) System Setting Change Dialog Box is displayed. Then, click the No button.
- 4) Double-click the **NetConf** icon.
- 5) Network adapter window is displayed. Then, click the OK button.
- 6) Success window is displayed. Then, click the **OK** button.
- 7) Double-click the **CheckNetConf** icon.
- 8) Network adapter window is displayed. Then, click the OK button.
- 9) Success window is displayed. Then, click the **OK** button.
- 10) Double-click the **4287A RF LCR Meter** icon. Then, confirm that the measurement view is displayed.
- 11) Turn the 4287A off.
- 12) Turn the 4287A on. Then, confirm that the Network Neighborhood icon is displayed.
- 13) Double-click the **4287A RF LCR Meter** icon. Then, click **System LAN SETUP Network Device Disable**.
- 14) Click **System SERVICE MENU MISC MENU SHUTDOWN AS INSTR**. Then, type password "**kid**" and click the **OK**. The 4287A shuts down automatically.
- 15) Turn the 4287A on. Then, confirm that the Instrument Mode is displayed.
- 16) Turn the 4287A off.
- 17) Turn the 4287A on.
- 18) Press B on the keyboard immediately when a message of "Push 'B' key to enter back up mode [B, N]?" is displayed.
- 19) Follow the instructions for back up mode.
- 20) The 4287A is restarted. Confirm that a message of "Push 'R" key to enter recovery mode [R, N]?" is displayed.
- 21) Confirm that the Instrument Mode is displayed. Then, turn the 4287A off.